HP Indigo Commercial Finishing –
Direct2Finish

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Look up the most updated version @ HP Indigo Commercial Finishing SharePoint

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Important note – how to use this document

Implications of the reference model

HP Indigo works with finishing partners in a reference model*, i.e.: **HP is responsible only for our own products, and the finishing vendors are solely responsible for their products** – including in the case of solutions that are integrated in-line with our presses. This means that the finishing vendors are exclusively responsible for providing full and accurate information about their products, performance of the product, sales and support etc.

This document is intended to support the HP sales teams in providing our customers with information about the partner's solution, to help the customer identify potential needs and to familiarize them with available partner solutions. However, we as the HP team cannot commit to any of the information concerning the finishing vendors, their products or their capabilities.

If a solution is of interest to the customer, they must engage directly with the finishing partner on all issues concerning the finishing solution. This includes verifying and completing all information and processes required to support their decision-making, performing their own due diligence, setting expectations and finalizing the commercial engagement, including support of the partner's solution.

We as the HP sales team need to make sure this is clearly conveyed to the customer, to set expectations and to avoid any misunderstanding.

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* Except where HP is reselling finishing products

A world of short-runs

To be **competitive and grow** your business,
you must offer **high quality jobs and differentiation** to your customers.
This requires unique jobs and format sizes, and leads to **shorter run-lengths**.

And while HP Indigo enables you to deliver this to your customers through digital printing, **finishing is still a bottleneck…**

As a result, **set-up as a percentage of the overall production time** is increasing… and will continue to grow.

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Have you ever stopped to consider…

*How often do you **throw away Work In Process due to errors** in cutting, or in the set-up or operation of another finishing device, and **need to reprint** the job?*

*What is the **make-ready time** required to set-up the guillotine / another finishing device?*

*What do you do when your **skilled guillotine operator is on leave** (or other finishing device) ? How many of your operators can operate the guillotine?*

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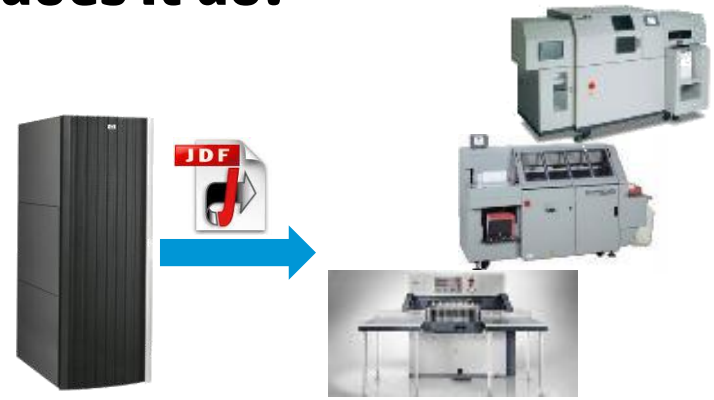
Direct2Finish – why do I need it and what does it do?

Finishing requires multiple manual make-ready and handling steps. These are time-consuming, prone to costly errors – wasting work in process – and require a skilled operator.

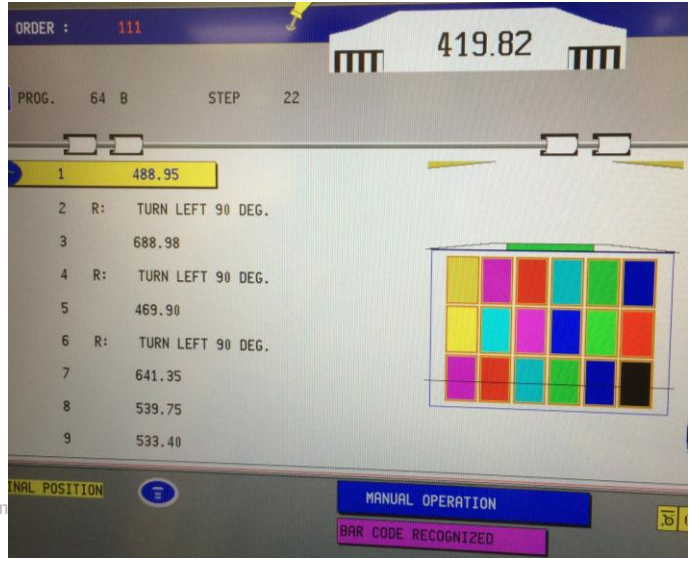
In a world of growing short-runs, increasingly unique in format sizes, the challenge multiplies exponentially.



Direct2Finish delivers set-up and operational instructions to the bindery via JDF – automatically, from Production Pro print server.

All that remains for the operator are two simple steps:

1. Scanning the barcode on the banner sheet
2. Following simple operational instructions, which are often animated.



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Direct2Finish – a disruptive solution automating the bindery using JDF

Direct2Finish delivers:

- **Faster turnaround**
- Eliminate **costly errors** and waste
- Reduced labor costs and **dependency on a skilled** operator
- Efficient production of **high-value jobs**
- **Differentiation** from the competition

Leverage existing operation, and a variety of applications -

- Direct2Finish supports the PSP's **existing finishing equipment** – no need for major CAPEX investment.
- Direct2Finish also supports **concatenated lines** – for production of complex, multi-step jobs.

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Customer story: iPrint

Established: 2009

Location: Be'er-Sheva, Israel

Employees: 40

Applications: commercial printing

Indigo equipment:

- HP Indigo 7600 Digital Press
- HP SmartStream Production Pro Print Server v5.0.2

Imposition: on the DFE

JDF-enabled finishing equipment: Guillotine: High-speed cutter POLAR N78 Pro with CompuCut

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The need:

High number of non-standard short runs

High number of short runs

- Dozens of jobs per day

Non-standard jobs

- 80% of jobs are non-standard format sizes
- Variety of sheet sizes
- Multiple up's
- Non-standard is a growing trend

High number of cuts

- Average cuts per job: 18
- Up to 50 sheets: Cost of cutting > cost of (paper + printing)

Inefficient to use pre-programmed setup plans

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The cutting challenge: Multiple manual steps

Measure

Calculate*

Plan

Key In

Process	Measuring the page & gutter of each printed output using a ruler	Calculating and noting the measurements for each cutting stage	Planning the cutting steps	Key in each measurement onto the guillotine
Errors	Wrong measurement	Typo's (in calculating or noting down measurements)	Sub-optimal planning	Typo's, page/gutter mix-up

x18

The Solution

Direct2Finish

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* Not needed for guillotines with self-calculating capabilities

Direct2Finish – Automate cutting: Reduce and Simplify manual steps

Without Direct2Finish

Measure

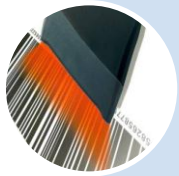
Calculate*

Plan

Key In

The job layout is defined by the DFE, received by the guillotine via barcode and translated into setup and optimal cutting instructions – all automatically, using JDF

With Direct2Finish


Scan

Follow

Scan barcode on banner page

Follow animated instructions

* Not needed for guillotines with self-calculating capabilities

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Direct2Finish “behind the scenes”: how does the automation work?

Preparation

When processing the job, Production Pro prepares a JDF file for the finishing devices, describing the job layout

Communication

When the operator hits “Print”, the JDF file is simultaneously sent to the finishing devices (over the network)

Banner sheet

When the job completes printing, a banner page with a barcode is printed

Loading instructions

When the barcode is scanned by the finishing device, it automatically pulls the relevant JDF file and translates it into setup and operational instructions

Fully automated

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Direct2Finish impact at iPrint

Faster turnaround

- 80% of cutting–related handling time saved
- Finish in-house more jobs, which were previously outsourced – eliminate bottleneck and capture more jobs

Eliminate costly errors

- Work in process; capture lost opportunities of incremental jobs due to the need to reprint
- Reduce waste

Lower labor costs

- Does not need to rely on a skilled operator
- Free up operator's time for other tasks

Differentiate

- Unique formats, high-value applications

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D2F impact in numbers…

Cutting costs			
H/W	Guillotine price	NIS	200,000
	Depreciation (years)		5
	Guillotine cost per month	**NIS**	**3,333**
	Knife maintenance (per month)	**NIS**	**1,000**
	Knife replacement cost (per year)	€	1,700
	Exchange rate		4.6
	Knives per set replaced per year	NIS	3
	Knife replacement per month	**NIS**	**1,955**
	Net hours per 9-hour shift		5
	Days per month		21
	Hours per month		105
Labor	Labor cost per hour	NIS	50
	Labor cost per month	**NIS**	**5,250**
Real estate & utilities		**NIS**	**3,000**
Total	**Total cost per month**	**NIS**	**14,538**
	Total cost per hour	**NIS**	**138**

Production and business implications		
Without D2F	Time to cut job with D2F (minutes, average)	10
	Jobs cut per hour (without D2F)	6
	Cutting cost per job	NIS 23
	Jobs per day (without D2F)	30
	% of jobs going to waste due to cutting errors	5%
	Jobs going to waste due to cutting errors per day	1.5
	Net jobs completed per day w/o D2F	28.5
With D2F	Time to cut job w. D2F (min, average, conservative)	5
	Jobs cut per hour with D2F	12
	Cutting cost per job	NIS 12
	Potential labor savings for original jobs (per month)	**NIS 2,625**
	Jobs cut per day with D2F	60
	% of jobs going to waste due to cutting errors	0%
	Jobs going to waste due to cutting errors per day	-
	Net jobs completed per day with D2F	60
	Size of opportunity (no. of jobs) with D2F vs. without D2F (excl. incremental opportunity due to reduces costs)	**211%**

Not profitable to absorb in short-runs

Cost of WIP gone to waste, and alternative cost of incremental job missed due to need to reprint

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NIS = New Israeli Shekels

iPrint current production with Direct2Finish

Use Direct2Finish for

> 90% of jobs

impact on cutting/handling process utilization –

increasing productivity by >100%

"It is the most wonderful thing that has happened in the world of cutting.

There is no way anyone would choose not to work with it.

It is so good that we won't do without it."

Shay Ben-Shimol, Founder and Owner, iPrint, Israel

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More customers' experience – UK, Japan

Applications include: general commercial printing, POS

Benefits - "Eliminates a massive bottleneck in finishing"

- ✓ Eliminates a lot of **manual work**
- ✓ Reduce **errors**
- ✓ Faster **turnaround**; "saves a lot of time on the guillotine", ~5 min/job
- ✓ Do not rely on a **skilled** operator
- ✓ Advantage over Prinergy: whereas Prinergy requires multiple **pre-setups**, D2F only requires 1 template for simplex and 1 for duplex
- ✓ Less **workload for pre-press** operator
- ✓ Less wait **queue** between tasks

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Solution components

Press	• HP Indigo 7x00 • HP Indigo 10000
HP SmartStream Production Pro	• S/W: v5.x • H/W: G6 and up
Finishing device(s)	• Supported devices - see dedicated slides
Workflow / Products	• Workflow use cases - see dedicated slides

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Supported devices

Strategic, long-term initiative – at least 2-4 additional devices every year

Device		Vendor	Device model
Category	Type		
Cutter	Guillotine	POLAR	Consult GBU/vendor
		MOHR CUTTING ON DEMAND	NET models
		Horizon	APC 61II
	Cut / Slit / Crease / Stack	Horizon	SmartStacker
		Duplo	DC-645
		LasermaxRoll TECNAUGROUP	PageReady (in Q4)
Perfect Binder		Horizon	BQ-270/280/470
3-knife trimmer			HT-30/80
Booklet Maker / Saddle Stitcher		c.p. bourg	ExPress / BM-e (in Q4)
		Horizon	Stitchliner 5500

t notice.

Imposition use cases

Direct2Finish is intended to be a fully e2e automated flow.

D2F supports 3 possible imposition use cases:

DFE / Designer	**Upstream** with JDF	Upstream without JDF
When processing the job, Production Pro prepares a JDF file for the finishing devices, describing the job layout	Imposition done on an upstream tool with JDF creation capabilities	Imposition done upstream, JDF created using LayoutPad
-- Fully automated --	*-- Fully automated pending upstream tool --*	*-- Semi-automated --*

Contact your SA for support in defining the customer's Direct2Finish workflow

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Pricing

License-enabled option in Production Pro – sold separately

List price

- AMS/APJ: **$10K**
- EMEA: **€5,000 / £ 4,300 / $ 5,700**
- Sold **per site**

Limited time Promotion!

- D2F option will be bundled with each v5.x upgrade at **no additional charge**.
- Valid through **31st Dec. 2014**

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Tools and documentation

3-minute Demo – http://www.hpwsn.com/#/en/products/product/17117

Case study

- Polar guillotine (iPrint) – available @ Marketing Suitcase, HP Indigo Commercial Finishing SharePoint

Training @ SmartStream University – https://cms.hpflowcm.com/pd/6UnUzBMzib2

Technical documentation

- Web-based training – http://ent252.sharepoint.hp.com/teams/TM-IDPDFE/Shared Documents/HP SmartStream Production Pro Print Server/5.x/Direct2Finish
- User guide – on MyIndigo @ www.hp.com/go/myindigo
- Ultimate User manual – on MyIndigo @ www.hp.com/go/myindigo

Finishing vendors contact persons and dealers – Consult your regional category manager

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FAQ

Q: Does D2F support S2 presses? How about S2 presses running Production Pro?

A: **Only S3 and S4** presses are supported, due to the solution architecture. S2 presses running Production Pro are not supported either. One of the customers using D2F has seen such value in the solution that they are considering upgrading their S2 presses to S3, so all their jobs can be supported.

Q: How many licenses will a multiple-press customer need?

A: A D2F **license is required per site** (see Pricing). Even if a site has multiple Production Pro units, only one D2F license is required for the entire site.

Q: What is the **roadmap** for additional devices?

A: At least **2-4 additional devices** are planned to be added **every year**. We welcome your inputs on what devices are common and will deliver the highest value to our customers – this will help determine which devices will be added to the portfolio next.

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Thank you

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